



Case report

Bizarre allegation of negligence in fabricated pin migration—A case report

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ABSTRACT

Kirschner's wires (popularly known as 'K-wires' or 'pins') are used commonly in various orthopaedic surgical fixations. Around the shoulder joint such pins are used for fixation of acromioclavicular joint, sternoclavicular joint, proximal humerus and clavicle. In such fixations, spontaneous loosening and extraction of pins would not cause as much anxiety and worry to the surgeon as a pin which breaks and migrates within the body. Such alarm is not just due to the potential damage that the migrating pin can cause, but also due to fear of misinterpretation of the event in legal suits as negligence and the subsequent claims for heavy damages. We present here a case where a patient attempted to raise allegation of negligence (probably planning subsequent claim for damages) by fabricating pin migration. The literature of such an unusual case is reviewed in brief.

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1. Introduction

Litigation cases against medical care providers are universally recognised. Of the varied causes for this rise; a pecuniary factor—'the substantial financial reward that a malpractice claim may generate,' should not be underestimated. Orthopaedic fixations provide easy evidence on X-rays which are evaluated on personal basis by the general public having poor understanding of medical science. Thus, patients may be lured into presentation of claims for damages either as the result of a superficial medical report without enough evidence or biased interest by a legal representative.¹

Poor doctor–patient relationship based on a hurried and incomplete dialogue has also been found to contribute to the worrying upward trend of malpractice suits involving physicians.² A detailed history would help detect subtle hints³ of psychosocial aspects of individual patients and necessary intervention can be instituted simultaneously along with orthopaedic surgical treatment in indicated cases. This would go a long way in preventing the possible malpractice claims arising out of such situations.

2. Case

A twenty-three years old male presented to the orthopaedic department of a district general hospital with a traumatic closed acromioclavicular dislocation on the left side. The condition was managed surgically by open reduction and fixation with two Kirschner's wires. Post operative period was uneventful and patient was discharged from hospital after suture removal. However, the patient failed to report for routine follow-up and instead returned after around four months with local infection at the operated site, pin exposure and loosening. A local debridement and a complete implant extraction were done. As a routine, post-operative X-rays were done to document the procedure of implant extraction and to look for status of the joint. As the joint showed subluxation, the patient was advised revision surgery when active infection subsided. But the patient refused any kind of further treatment for the subluxation. He was discharged after adequate wound healing.

Around a year later the patient presented again with left shoulder and elbow pain alleging that the implants had not been completely removed and that the wires have migrated from the shoulder to the elbow region. On examination, the scar on the left shoulder showed early signs of inflammation and the left elbow region also showed some indurations. Initially, it was labelled as a flare up of chronic infection causing distal edema. On the basis of previously issued discharge report patient was counselled and explained that the implants had been completely removed during

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the previous surgery. He was put on antibiotics and anti-inflammatory drugs and asked to follow-up after five days. Finding no improvement on follow-up and with the patient continuing his allegation, X-ray of left shoulder and elbow were advised. These X-rays showed multiple (six), irregularly placed, pin-like shadows each measuring around 2.5–3.0 cm long, lateral to the radial head and anterior to the lower end of humerus (Fig. 1, X-ray of elbow with foreign bodies inserted) and two similar pin shadows measuring around 4.0 cm in length near the left clavicle, one inferior to the lateral end and one above the middle of clavicle (Fig. 2, X-ray of shoulder with foreign bodies inserted).

The X-ray appearance of foreign bodies immediately excluded the possibility of pin migration. However, in view of the allegation, the old case records with X-rays of the patient were retrieved from the Medical Record Section as evidence. These case records substantiated a well-documented implant extraction and the mismatch of fresh X-ray findings with the surgical procedure done (K-wires used for A-C joint are thicker and longer, bent at the end to prevent migration and if broken usually migrate into the thorax and not the elbow). Having obtained necessary evidence, the first author was impelled to counsel the patient again taking him into confidence. Subsequent detailed history obtained from the patient and his relatives revealed that the patient was financially burdened due to a family property dispute. He was a chronic drug abuser and alcoholic with frequent hospitalizations for de-addiction and psychiatric treatment. He confessed to have inserted broken needles and metallic paper pins into his elbow and shoulder during hospitalization for an unsuccessful suicidal attempt.

Considering the patient's initial allegation of pin migration, a medico-legal registration of the case was sought, but the patient refused to give consent for the same. As there was no trespass of the law in this case, the patient's refusal to give consent was considered and a medico-legal case was not registered. However, keeping in view his medical condition and to document the patient's submission of having himself inserted the needles and pins, due confession was taken in writing. After obtaining a written informed consent, a surgical exploration was done and the foreign bodies were removed (Fig. 3, X-ray after foreign bodies were removed). Post operative healing was uneventful. Before discharge the patient was advised psychiatric consultation.



Fig. 2. Broken needles inserted around the shoulder.

3. Discussion

Migration of pins used in operations around the shoulder joint to a variety of anatomical locations has been previously well reported.⁴ Migration of pins in these cases was predominantly central, i.e. towards the thorax, spine abdomen and skull. We found only one report of migration of a Steinmann pin to the proximal part of the arm from the shoulder region.⁵ Pin migration remains poorly reported because of the sensitive and litigious nature of the problem.⁴ Before placing pins in the shoulder girdle, the physician must carefully instruct the patient regarding the importance of follow-up evaluation and removal of pins.⁶ Radiographs should be taken intra-operatively or immediately after the procedure to document the placement of pins. Subsequently, follow-up X-rays should be taken every two or four weeks until the pins are removed⁶ in order to avoid medico-legal dispute. Hardware failure/migrated pins are indefensible because of the easily available evidence. The best way to limit such disputes is by proper documentation of procedures, preservation of radiological evidence wherever possible and proper maintenance of medical records. If the X-ray after implant extraction had not been taken in this case, it



Fig. 1. Paper pins and needles inserted around the elbow.



Fig. 3. Surgically removed pins and needles.

would have been difficult to refute negligence due to lack of evidence.

In this case even though a malpractice suit was avoided, the time and emotional involvement was huge. A proper history recorded at the time of first presentation itself could have altered the progress of the case by early psychiatric intervention. However, considering the rarity of such cases, the effort to identify patients 'at risk' pre-operatively for such allegations would not be worth it. Nevertheless enhancement of communication with patients and family members along with proper history taking gives clues regarding the psycho-social aspects of the patient.³ It also ensures efficient treatment and is critical not only for reducing malpractice risk, but also for good patient care.⁷

This case will also make the forensic doctor aware of the possible factors that could lead to litigation in such cases.

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